Audubon Society of Rhode Island



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DROWNING IN PLACE Rising Seas are Disrupting Salt Marsh Habitat

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From the Desk of the Executive Director

Moving Inland – Saving the Vanishing Salt Marsh

Salt marsh destruction is not new. Development has wiped out more than half of these shoreline habitats that were originally found in Rhode Island. In fact, much of downtown Providence was once salt marsh.

But now these fragile habitats are facing yet another threat: rising sea levels due to climate change. Under normal conditions, marshes have kept pace with sea level rise through the buildup of sediment. However, these habitats are becoming increasingly overwhelmed by a more rapidly rising sea – and the birds and wildlife that depend on

these areas are also threatened. The Saltmarsh Sparrow stands out as one example that is in real trouble. The Audubon Society of Rhode Island has long understood the value of salt marsh habitat. As early as the 1950s, Audubon lobbied for one of the first coastal wetland protection laws in the country. Recognizing that these areas are valuable not only for birds but also as nurseries for coastal fisheries, the Society also began acquiring salt marsh habitat in order to protect it.

Now is not the time to despair, but to envision a future landscape in which sea level is seven or ten feet higher. Recognizing that salt marshes will have to recede to areas that are currently inland, all of us must work to ensure this habitat continues to exist. It is vital for bird and fishery habitat as well as serving as soft buffers from the flooding that future generations will certainly face.

Thank you for your support.

Jaun J. T. T.

Lawrence J. F. Taft Executive Director

Your Footprints

We all leave footprints. Our tracks in the sand, snow and mud can be traced and we try hard to reduce our carbon footprint on the environment. But perhaps our most lasting footprint is the one we leave for others to follow. A person is remembered for the weight of his or her character. For imprints of accomplishment. For shapes of kindness. For length of compassion. For width of personal warmth. For generosity. For values.

When we leave positive impressions behind, we enhance the lives of our friends and loved ones. We give them footprints to follow.

Thoughtful estate planning is one means we have to make a print in the sand to help others recall our priorities. For example, consider the effect of a plan that includes provision for family members and resources for charitable organizations like Audubon.



1. An estate gift makes a positive statement.

When you include the Audubon Society of Rhode Island in the final disposition of your estate, you declare to your family and friends that you believe in and care about birds and nature. Your parting gift becomes a clear declaration of your values.

2. An estate gift provides needed funding.

Estate gifts are especially valuable, not only because they tend to be larger than annual gifts, but also because they often come at critical times. They provide that extra boost that can make the difference between program advancement and program retrenchment.

Estate gifts can be designated for a specific purpose or they can be unrestricted for use where needed most. During our Invincible Audubon Campaign, all estate gifts will help fund our permanent endowment to keep Audubon active and dynamic for decades to come.

3. An estate gift encourages imitation.

There's something about a well-planned estate gift that influences others to "go and do likewise." As friends and family members plan their own estates, they may recall your generosity and thoughtfulness. Your gift may unlock resources for Audubon from other estates.

To arrange for a personal visit or to simply request complimentary materials on leaving Audubon in your will, please contact Jeff Hall at (401)949-5454 x3017 or by email at jhall@asri.org.

Rising Seas are Drowning the Salt Marshes

By Todd McLeish

Part Two of the Audubon Report 2017 Series on Climate Change

The salt marsh at the Audubon Society of Rhode Island's Shadblow Preserve on the Narrow River in Narragansett is wetter than it should be at low tide. Near the highest point on the marsh, Scott Ruhren stood nearly ankle deep in water, and shallow tidepools were unable to drain naturally, providing breeding habitat for mosquitoes. At the inland edge of the marsh, invasive phragmites were encroaching in areas where salt hay – a native plant that Ruhren said looks like the cowlick on a 10-yearold's head – should be thriving instead.

A few Killdeer and Wilson's Snipe called loudly when they flew off at the approach of Audubon's senior director of conservation, but little other bird life was noticeable in early spring, other than a few soaring gulls. It was a bad sign.

"Just about every salt marsh in Rhode Island is having problems like these," said Ruhren of the 20-acre marsh property donated to the Society in 1974. "Our most obvious issue here is ponding of the water, rather than it draining, which is causing a switch-over in the plant community and a die-off of plants that can't survive being constantly inundated."

Nearly all of the significant problems facing salt marshes in Rhode Island can be traced to rising sea levels – caused by melting glaciers and the thermal expansion of warming waters – and increasingly severe storms, both of which result in flooding and erosion of the habitat that serves numerous ecological functions. According to Kenny Raposa, research coordinator at the Narragansett Bay National Estuarine Research Reserve on Prudence Island (administered in partnership with Audubon), salt marshes are essential habitat for numerous species of fish and birds, and they absorb large quantities of carbon from the atmosphere. They also filter out pollutants and protect shorelines and property from damage caused by storms and waves.

"Salt marshes require regular flooding with tidal waters, but it's a delicate balance," he said. "If they're flooded too much, they drown and convert to open water. At high tide, essential nutrients are brought in for the plants. Low tide gives the marsh soils some time to dry out and provides access for birds and wildlife to use the marsh for feeding."

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Rising Seas are Drowning the Salt Marshes

Continued from page 3

Raposa, who has been tracking the decline of salt marshes in Rhode Island for close to 10 years, said that sea level rise has led to the loss of almost 20 percent of the state's salt marshes in recent decades, and the rate is accelerating. His research has found that the salt marshes in the region are the most vulnerable in the entire country.

"It's happening right now, and it's happening faster than I thought it would," he said. "At normal rates of sea level rise, our marshes could keep pace as decaying plant matter and sediment deposits helped the marsh grow vertically at the same rate as sea level rise. But this just cannot happen fast enough anymore in our region, so the marshes are essentially drowning in place."

Salt marshes in the Northeast are growing through this accumulation of plant matter and sediment at a rate of 1.4 millimeters per year, while sea level has been rising 5.6 millimeters per year since 1999. It's a trend that will only get worse. According to the National Oceanic and Atmospheric Administration, sea level has already risen about 10 inches in Rhode Island since 1930, and scientists predict it will rise two more feet by 2050 and seven feet by 2100.

The problem the birds face has everything to do with the rising water levels in their breeding habitat.

Raposa and Ruhren agree that the ideal circumstances would allow salt marshes to migrate inland as the waters rise. In some places that may be possible, though whether the marsh migration can keep up with the rate of sea level rise is uncertain. But most salt marshes in Rhode Island are faced with numerous barriers to their migration – roads and other developments constructed behind the marshes prohibit their inland movement, or the slope of the land limits how far they can move.

"Even worse," said Raposa, "new evidence shows that natural upland habitats like a forest can hold out longer than we thought and prevent marshes from migrating."

Other climate-related factors are exacerbating the problem. Warming temperatures may accelerate the breakdown of plant matter, making it more difficult for the marshes to grow in elevation to keep pace with sea level rise. And warmer winter temperatures allow fiddler crabs, which destabilize the soil with their burrows, to be active longer.

One of the biggest losers from the flooding and loss of salt marsh habitat is the appropriately named Saltmarsh Sparrow. The only breeding bird found nowhere else but on the East Coast of the United States, it is one of four local birds that breed exclusively in salt marsh habitat. (The others are the Seaside Sparrow, Clapper Rail and Willet.) Scientists predict the sparrow will go extinct within the next 50 years.

Research by University of Connecticut scientists Chris Elphick and Chris Fields has found that the secretive streaked bird with a pale orange triangle on its cheek has been declining by about 9 percent per year since the late 1990s.

"To put it in context, if your stock portfolio was declining at that rate, you'd be losing money fast. It's pretty bad," Elphick said. "About threequarters of the population has disappeared."

Steve Reinert, a part-time ornithologist and Audubon program leader who has been studying salt marsh birds in Rhode Island since the 1980s, hasn't observed a noticeable decline in the population of Saltmarsh Sparrows yet, but he knows it won't be long before he does.

"Call me a pessimist, but I have little hope for this species," said Reinert, currently a member of Audubon's Council of Advisors. "It's a species of global concern."

The problem the birds face has everything to do with the rising water levels in their breeding habitat.

Saltmarsh Sparrows build their nests on the ground in areas of high marsh that typically do not get flooded except at high tide on nights with a new moon, which occurs every 28 days. It takes the birds that entire 28 days to build a nest, lay and incubate eggs, and raise nestlings to the point when they are able to make their first flight.

Reinert said that the birds' first nesting attempt typically fails when it is flooded during the first new moon tide of the breeding season. But as soon as that happens, the birds start the process all over again and the nestlings typically fledge on the day of the next moon tide. Sometimes the young birds have to climb out of their nest and up an adjacent reed to avoid the rising tide on the last day or two before they are able to fly.

"Most of our successful nests get synchronized to the tidal cycle," Reinert said. "All of the birds lose their first nest on the same night, and they all start building the new nest the same day."

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Saltmarsh Sparrow Nest Monitoring *at the* Shadblow Preserve

During 2014 and 2016, Saltmarsh Sparrow nest monitoring was conducted by US Fish and Wildlife along the Narrow River at the John H. Chafee National Wildlife Refuge and the Audubon Shadblow Preserve in Narragansett.

Eleven nests were found in 2014, six were found in 2016. In both monitoring periods, less than two birds were fledged per nest.



The Shadblow Preserve, owned and protected by the Audubon Society of Rhode Island, is located within the boundaries of the Chafee National Wildlife System. Due to the vulnerability of the habitat, there are no trails through this area.

The "Other" Sparrow on the Salt Marsh

By Walter J. Berry

The salt marsh at Audubon's Lathrop Wildlife Refuge Westerly, RI.

In June and July of 1982, former Audubon Board Member Frank Golet (shown here), Peggy Stoll, and a small army of volunteers walked every salt marsh in Rhode Island, counting all of the Seaside Sparrows (Ammodramus maritimus) they could find. It was the first statewide census of these birds. They published their results in the Audubon Society of Rhode Island Report in May 1983. Below is an update to this study by Walter J. Berry of the U.S. Environmental Protection Agency.

This spring the sparrows will come back to the marshes in Rhode Island (RI). Unlike Willets (*Tringa semipalmata*), which fly around and make a huge racket if you get near their nests on the marsh, Saltmarsh Sparrows (*Ammodramus cauducatus*) and Seaside Sparrows are much more discreet and spend most of their time skulking in vegetation.

Both sparrows breed exclusively on salt marshes and as their breeding habitat shrinks, the threat to both sparrows grows. The Saltmarsh Sparrow is getting more attention these days as its population levels are so low. It nests directly on the surface of the marsh, causing it to be at greater risk for loss due to flooding. In fact, the Saltmarsh Sparrow population is predicted to face global collapse within the next 50 years. Although the Seaside Sparrow builds nests in taller marsh vegetation and has a lower nest flooding risk, it is still vulnerable to habitat loss.

In 2007 and 2008 several of my EPA colleagues and I, along with a number of local birders (including two Audubon Society of RI staff), repeated Stoll and Golet's Seaside Sparrow inventory, using their methods on twenty Rhode Island salt marshes. Since the Seaside Sparrow prefers large marshes, we searched all of the locations where sparrows were found in 1982, as well as the larger marshes where sparrows were not found in the earlier survey.

What did we find?

There were fewer Seaside Sparrows counted at 10 of the 12 marshes where Stoll and Golet had found sparrows in 1982, while sparrow abundance increased on three marshes, one of which had no

skulking in vegetation

Seaside Sparrows are discreet

and spend most of their time



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sparrows detected in the earlier survey. Also, Seaside Sparrows were not found on the four smallest marshes where they had been counted before. The total abundance of Seaside Sparrows observed at our sites decreased from 98 in 1982 to 58 in 2007 (41% decrease from 1982) and 68 in 2008 (31% decrease from 1982).

What has happened since 2008?

The two marshes with the largest number of Seaside Sparrows in 2008 were Hundred Acre Cove in Barrington and Ninigret Pond in Charlestown. We revisited Hundred Acre Cove in 2013, and counted 21 Seaside Sparrows (there were 19 in 2008.) We have gone back to the Ninigret and Quonochontaug marshes in Charlestown every year since 2008. The numbers of Seaside Sparrows at Ninigret have held steady since 2008, and actually increased from 31 in 2008 to 35 in 2016. At Quonochontaug the story is not as good. It is the smallest of the marshes we surveyed that had Seaside Sparrows in 2008. Observed numbers there have gone down from 14 in 1982, to 7 in 2008, to zero in 2012. We have not found any Seaside Sparrows at Quonochontaug since 2012. This continues the trend of loss of Seaside Sparrows at smaller marshes. (In marked contrast, the numbers of Saltmarsh Sparrows observed at Quonochontaug has remained relatively constant.)

What is the future for the Seaside Sparrow in Rhode Island and beyond?

We estimate that the current population of Seaside Sparrows in Rhode Island might be 50 to 60 birds (assuming that the numbers at Hundred Acre Cove have remained relatively constant.) The Saltmarsh Habitat and Avian Research Program (SHARP), Steve Carlson

using a very different procedure from ours, estimated that there are only 24 Seaside Sparrows in Rhode Island. The Seaside Sparrow is currently classified in Rhode Island as a species of "Concern" just a step above "Threatened." Given the population decline and the impending threat to salt marsh habitats by rising sea levels, it only seems reasonable that the classification be re-examined and that monitoring of the species be continued.

Let's hope that efforts underway, like the thin layer application of dredged material currently being tested on several Rhode Island marshes, will help to slow the loss of salt marsh habitat. In the meantime, it cannot hurt if these little birds get some extra attention. Get out there and visit them (from a respectful distance) on a trail through a local salt marsh. And watch out for Willets.

Walter J. Berry, U.S. EPA, 27 Tarzwell Drive, Narragansett, Rhode Island, USA, 02882 401-782-3101 berry.walter@epa.gov

016 2nd Place Winner

Bernard Creswick

Sparrows in the Marsh *Identification Tips*

The **Seaside Sparrow** has dark, drab gray coloring with a yellow patch in front of its eye. It sings on territory and can often be heard from high-tide bush or phragmites. Its song sounds a bit like that of the Redwinged Blackbird.

The **Saltmarsh Sparrow** is often identified by its orange-yellow face. This species does not sing on territory and its soft song is seldom heard. It is often likened to the sound made by the sizzle of a frying pan.

Both sparrows are most often seen briefly as they fly from one part of the marsh surface to another. If you see one singing from a perch, it is most likely a Seaside Sparrow.

Where can I go to see them? From mid-May through July, the best places to see these sparrows in Rhode Island are Succotash Marsh in East Matunuck and the marsh near the Charlestown Breachway.

Seaside Sparrow

Saltmarsh Sparrow



AUDUBON 2017

Share with Audubon the images of nature found through the lens of your camera. Photos must be taken on one of Audubon's wildlife refuges that are open to the public.

Submissions are due on or before October 31, 2017. Visit www.asri.org to enter.

Join the Audubon Team... VOLUNTEER

Memorial Day Nature Programs for Kids -May 29, 2017: Help children with activities, nature walks and crafts at the Audubon Environmental Education Center in Bristol.

Citizen Science: Butterfly Count East Bay Locations: June 24, 2017 West Bay Locations: July 22, 2017 Learn about native butterflies and head into the field with an expert guide to identify and record sightings.

Gardeners Needed in Smithfield: Do you have a green thumb? Consider volunteering in our gardens at Powder Mill Ledges Wildlife Refuge in Smithfield.

Community Service: Inquire about service opportunities at Powder Mill Ledges Wildlife Refuge in Smithfield. Cleanups and refuge maintenance projects are perfect for scouts, corporations, community groups or individuals.

Internships: Gain summer experience in conservation or information technology. Deadline for submitting an application for summer internships is June 1, 2017.

For more information contact Jon Scoones at jscoones@asri.org or call (401) 245-7500 Ext. 3044



Planning a Celebration?

Weddings

The Audubon Environmental Education Center in Bristol, Rhode Island is a scenic destination for weddings, bridal showers or photography.

Birthday Parties Customize your child's party and have a wild time!

Getaways

Audubon's Maxwell Mays Cottage in Coventry, Rhode Island is an ideal and affordable location for a short getaway or weeklong family vacation.

Naturally, Audubon Has You Covered.

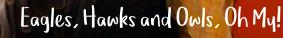
For birthday party options and rental details, visit www.asri.org and click on the services link.

Thank You! 2017 Party for the Peregrines

Audubon Society of Rhode Island's annual Party for the Peregrines was held on April 21, 2017 at the Squantum Club in East Providence.

Over 160 friends and supporters of Audubon gathered to celebrate Rhode Island raptors. The VIP reception began the festivities with the

presentation of both Bald and Golden Eagles. Audubon's live owls, a Red-tailed Hawk, and an American Kestrel also made appearances during the evening. The event raised more than \$65,000 to support Audubon Society of Rhode Island's raptor education and rehabilitation programs.





Left to right: Board Members Peter Lisle and Nathan Chace with Seth Handy



Board Member Dr. Nicholas Califano and Executive From left: Renee Lemos, Board Member Meghan Frost From left: Lisa Gould, Kurt Voss, Helen Jankoski and Council of Advisors President Charlotte Sornborger Director Lawrence Taft with Ted and Sally Schwartz



Board Member Michael Viveiros and Suzanne Dunkl



Council of Advisors Member Gurdon Wattles with Kathy Wattles





and Sally Phillips



Kathy Melbourne (left) and Lisa Close



Board Member Everett Stuart with Kristine Stuart



From left: Board Member Heidi Piccerelli and David Piccerelli with Martha and Eric Salander



Joe Zybrowski

Tom and Sondra Pitts

presents Audubon's Great Horned Owl, Webster.



Board Member Deb Linnell (left) with Karen Jefferies



with Martin Sornborger



Audubon Board President Cynthia Warren (left) with Kirk and Ellen Jordan



Guests play the popular Heads and Tails Game

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CLIMATE CHANGE IN THE OCEAN STATE What Causes Climate Change?

Human activity such as transportation, energy production and manufacturing, burn fossil fuels that release carbon and other gases into the atmosphere. These gases form a heat-trapping blanket that warms our air and oceans.



What Are The Results?

Rising Sea Levels

Our shores will be impacted by melting ice and thermal expansion of warming water.



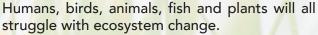
- Rhode Island has seen a 9-inch increase in sea level since 1930.
- Loss of salt marshes, habitat and shoreline erosion will result.

Unstable Climate Patterns



- In Rhode Island, heavy storms with flooding are on the rise.
- Annual precipitation has increased 6% to 11% since 1970.
- Intense rainfall events have increased 71% since 1958.
- Between the years 2020 and 2099, expect 18% to 20% more precipitation and twice as many extreme weather events with severe flooding will occur.

Air & Water Temperatures Rise



- The average annual air temperature in Rhode Island has risen 3.0°F over the past century.
- In Narragansett Bay, the average water temperature has risen 2.5°F over the past 50 years.
- Between the years 2020 and 2099 expect to see warmer winters with 22 to 45 fewer days below freezing and hotter summers with 13 to 44 more days above 90°F.

What Can You Do?

- Reduce energy use. Drive less (walk, bike and use public transportation) and create an energy-efficient home.
- Purchase green power to heat and cool your home and insulate it well.
- \bullet Support land conservation. Forests remove CO_2 from the atmosphere, provide shade to keep the landscape cooler, and are critical habitat for birds and wildlife.
- Landscape and garden with native plants that provide food, cover and nesting materials for birds and wildlife.
- Stay informed. Support legislation and community efforts that reduce carbon emissions. Sign up for advocacy emails by contacting Meg Kerr (mkerr@asri.org)



Rising Seas are Drowning the Salt Marshes

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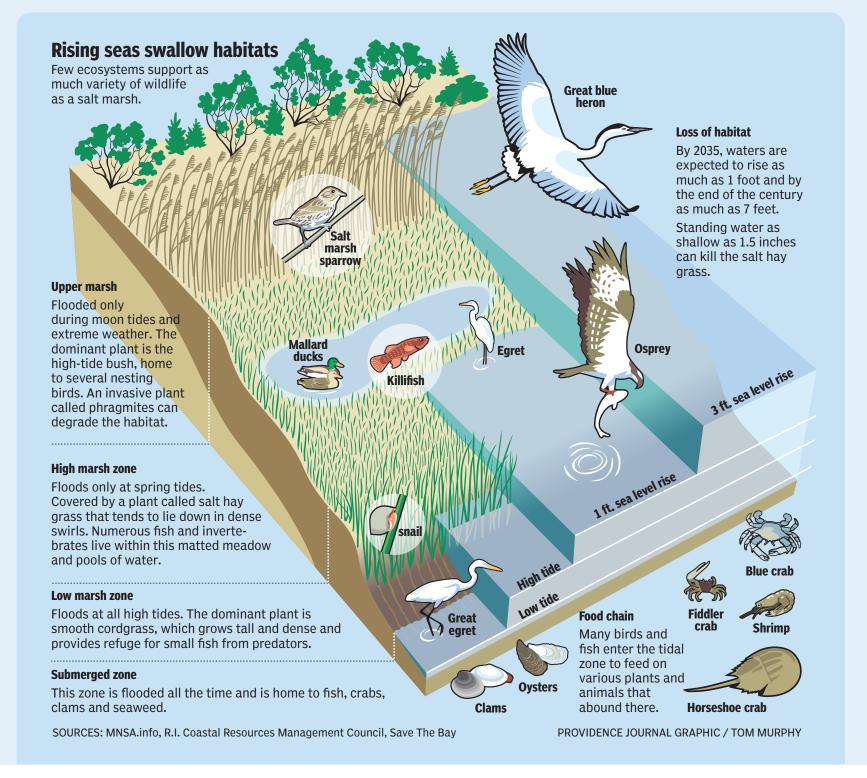
But as sea levels are rising, the birds are finding it more and more difficult to complete their nesting cycle before the high water returns.

"It's already incredibly close for them without adding sea level rise. It's always been touch and go," said Reinert. "But now the whole balance of the equation is being thrown off, and they can't afford to lose a day. The combination of a higher amplitude of tide and a potential shorter period to complete the nesting cycle can dramatically throw off this balance of nature. That's where the devastation will come."

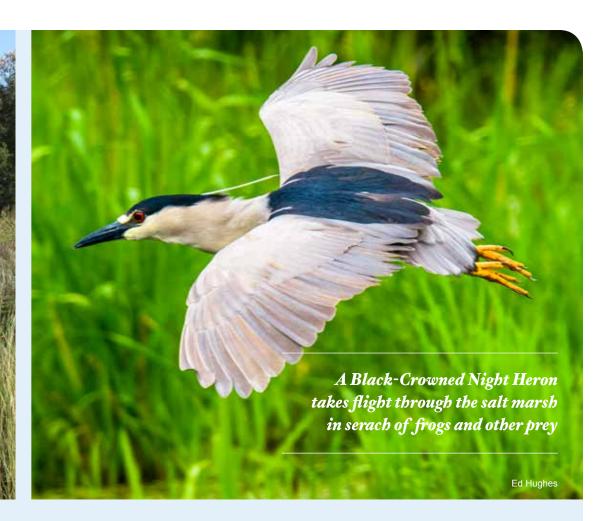
"It doesn't take too much sea level rise to flip the switch for the birds," added Elphick. "Literally, a couple inches can make the difference."

Unfortunately, little can be done to protect the birds in the long term, since any steps taken now to reduce sea level rise won't have a practical effect until it's too late. And while Elphick is exploring potential shortterm fixes – like identifying the marshes that are least susceptible to the effects of sea level rise so they can be protected – he too is pessimistic that the birds will last much beyond mid-century.

While the outlook for the sparrow appears bleak, there are still numerous strategies that can be employed to preserve at least some of the salt marshes in the region. At the Sachuest Point and John Chafee National Wildlife Refuges, for instance, sand is being trucked in



Bridge over Audubon's Touisset Marsb Wildlife Refuge in Warren, RI



to raise the elevation of the marshes. Elsewhere, barriers to salt marsh migration, like old roadways, parking lots and other infrastructure, are being removed. And Kenny Raposa and others are experimentally testing the effectiveness of other ways of helping marshes survive the onslaught, from carefully digging channels into waterlogged sections of marshes to help them drain to seeking ways to help marshes migrate more quickly into adjacent uplands.

But deciding which marshes to protect and which to allow to disappear is difficult.

Meg Kerr, Audubon's senior director of policy, acknowledges that Rhode Island has a great deal to consider when setting priorities for responding to climate change, especially when it comes to sea level rise.

"Resources are not endless," she said. "So when it comes to salt marsh restoration projects, it is important to step back, take a good look at where the best chances are for salt marshes to retreat and remain viable ecosystems, and make sure we're investing in and prioritizing those sites."

"Fortunately, we have the tools to tell us where the best options for marsh migration are located," she said. "There are lots of important players, including Audubon, who are already working together to implement salt marsh restoration projects."

Using the national Sea Level Affecting Marshes Model, the Rhode Island Coastal Resources Management Council has mapped every coastal community in the state to identify the low-lying upland properties adjacent to salt marshes that may allow for future marsh migration. While the maps suggest that 80 percent of the state's salt marshes will be lost from five feet of sea level rise – which would be expected to occur by the 2080s – marshes in upper Narragansett Bay appear to be less vulnerable than those along the south shore. According to Caitlin Chaffee, the CRMC policy analyst who manages the state's Coastal and Estuarine Habitat Restoration Trust Fund, priority areas for salt marsh restoration will likely be based on marsh size, migration potential, those in important bird areas, and those containing a rare habitat called a sea level fen that is characterized by acidic peat mats made of sphagnum moss, such as Audubon's Lathrop Wildlife Refuge in Westerly. There are many potential intervention actions that can be taken at priority marshes, but she told attendees at the Rhode Island Land and Water Summit in March that "the fact that we're already putting sediment on our marshes is an indication of how dire a situation we have. At first thought you'd think that marsh filling would be a serious no-no, but now we're saying it's a good thing."

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What Can You Do?

Let your state representatives and congressional delegation know that salt marsh restoration is critical to environmental health in Rhode Island. Careful planning and prioritizing is needed to make the best use of our resources.

Support the Audubon Society of Rhode Island and our efforts to conserve these critical habitats and fight for legislation to restore them.



Peter Green



WHO LIVES IN A SALT MARSH?

Salt Marshes are special wetland habitats found next to the ocean that are flooded and drained by the tides. Salt marsh soil is very wet and spongy because it is made up of deep mud and decomposing plant matter. We are lucky to have these important habitats here in Rhode Island as they provide a home for many birds and wildlife species.

The birds in a salt marsh are always busy.

Osprey hover over marsh creeks hunting for fish. Tree Swallows swoop through the air, catching mosquitos and flies. Willets circle around loudly calling "willet, willet, willet" to distract predators away from their nests. Herons and egrets stand very still waiting for lunch to swim by.

Smaller creatures also call the salt marsh home - but you have to look closer to find them!

Fiddler crabs are fun to watch as they scurry about. The male crab has one big claw and one small claw. He waves his big claw around to attract the female crabs and uses his small one to eat. When he moves them together, it looks like he is playing a fiddle!





Mummichog

Salt marsh periwinkles graze along the surface of the peat eating algae and cordgrass, but climb up the grasses to escape hungry young **blue crabs**. **Ribbed mussels** bury in the peat and filter tiny pieces of food from the water. People don't eat this type of mussel because they taste like the mud they live in! Striped killifish, mummichogs, young striped bass, and other fish find food and shelter in marsh creeks. Watch out for those birds, little fish!

Bring some binoculars and head to a salt marsh to observe the birds and wildlife that call it home. Audubon's Emilie Ruecker Wildlife Refuge in Tiverton, Touisset Marsh Wildlife Refuge in Warren, and Lathrop Wildlife Refuge in Westerly provide well-groomed trails next to beautiful salt marshes. On Jamestown, enjoy a view of Audubon's Foxhill Salt Marsh from an overlook at Fort Getty. Please be respectful of these fragile habitats by being careful and staying on the trails.





Leadership Donors Honored at Caratunk Luncheon

Over 50 Audubon supporters gathered on March 17, 2017 for the fifth annual Leadership Luncheon at the Caratunk Wildlife Refuge in Seekonk, MA.



Audubon Senior Director of Education Lauren Parmelee with Board President Cynthia Warren



Board Member Don Heitzman and Fred Griffith



Larry and Jane Ransom



Council of Advisors member Marc Mahoney (center) with guests Amabel and Bill Allen



Liz Gagnon (left) and Anne Ferri



Holly (left) and Janice Williams

In attendance were members of Audubon's 1897 Society (donors who contribute \$1,000 or more annually) and Hawkes Legacy Circle (donors who have provided for Audubon in their will or estate plan.)

Supporters and their guests were recognized and enjoyed lunch with presentations by Audubon Executive Director Lawrence Taft and Senior Directors Jeff Hall, Lauren Parmelee, Scott Ruhren and Meg Kerr.



Former Audubon Executive Director Alfred Hawkes and his wife Marie



Board Member Nick Califano, Mary Chase, Mary Speare



Janice and George Kortyna



Constance Jacobucci, Denise Marginson, John Jacobucci





From left: Janet Wilson, Liz Paquet, Jackie Proulx and Audubon Senior Director of Policy Meg Kerr



Roberta Humble (left) and Marlene Harrington



Charles and Eleanor Greenhalgh



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Rising Seas are Drowning the Salt Marshes

Continued from page 11

While some scientists and coastal advocates are trying to put a positive spin on prospects for preserving salt marshes for the longterm, most appear to recognize that they are fighting a losing battle. Kenny Raposa, for one, finds hope from the many dedicated people, like Kerr, who are working together to try to figure out what can be done to preserve as many marshes as possible. But he also admits that he's "quite pessimistic. I'm literally seeing and recording the loss of these marshes every year," he said.

Steve Reinert, a long time Audubon supporter, feels a similar sadness for what is being lost.

"As a salt marsh researcher for 46 years in Rhode Island and southeastern Massachusetts, the thought of losing one of my favorite places, my favorite environments to walk and take people to and birdwatch in, is personally devastating," he concluded. "I love the smell of the salt marsh, the prospect of a Clapper Rail running in front of you, fiddler crabs nipping at your toes. To think that the marsh may not even be there to walk any more is very depressing."

Todd McLeish is a life-long birder, freelance science writer and author of several books about wildlife, including Narwhals: Arctic Whales in a Melting World.





Donate right away by going to www.asri.org and donate online



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Thank You! -

PARTNERS IN CONSERVATION

The companies listed below have demonstrated their significant commitment to the quality of life in Rhode Island and to conserving natural habitats throughout the state through stewardship and education.

- Blount Fine Foods
- New England GreenStartPepsico Foundation
- Case Construction Company
 Citizens Bank
- Perfect Supplements
- Dassault Systemes SIMULIA Corp.
- Lyons & Zaremba, Inc.
- Rhode Island PBS United Natural Foods
- oa, Inc. Uni

GIFTS IN HONOR

The people listed below have been honored by family and friends who found a gift to the Audubon Society of Rhode Island to be the most meaningful way to celebrate someone important in their lives.

In Honor of Sona Kalfaian-Ahlijian From Shanna Treveloni In Honor of Karen Wilkie-Jodoin From: Larry and Shelley Jodoin

MEMORIALS

Memorials serve and support the conservation and protection of Rhode Island's environment. During the past quarter, the families and friends of people listed below have chosen to remember their loved ones through a gift to the Audubon Society of Rhode Island.

In Memory of Edythe L. Anthony From: Eric C. Sjoblom

In Memory of Elizabeth M. Cesario From: John and Elizabeth Faricy Jeanne Legare Quote International of Woonsocket

In Memory of Arthur England From: Ruth Moberg

In Memory of Joyce Gardner From: Major Sullivan Ballou Camp #3 SUVCW

In Memory of Gerald F. Helfrich From: Janice Brophy Barbara Greason Gloria Riley

In Memory of Elizabeth Parsons From: Walter and Thelma Hohler Paul and Joanne Morrissey Harvey and Audrey Templeton

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In Memory of Nicole Reinert From: Robert and Ellen Bushnell Martin and Charlotte Sornborger

In Memory of Linda Ruel From: Lois G. Beauchain Karen Carlson Dorothy Johnson Avis O'Neill

In Memory of Elizabeth White

From: Citizens Bank – Ruth Louis Janet Coit and Peter Regan Dulgarian Brothers Uniforms John and Marie Hennedy Eugenia S. Marks Mary Nowicki

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AUDUBON SOCIETY OF RHODE ISLAND 1897 SOCIETY

Named for the year of the Audubon's founding, the 1897 Society honors those whose leadership gifts enable the Audubon Society of Rhode Island to advance its mission of protecting birds, other wildlife and their habitats through conservation, education and advocacy. Our donors can take satisfaction that their contributions have an immediate and lasting impact on the people, wildlife and natural beauty of Rhode Island.

The 1897 Society celebrates donors who give annually at the \$1,000 to \$10,000+ level as special contributors to our ongoing mission and shall be recognized at the following levels:

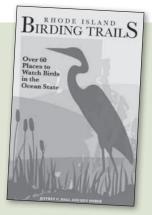
Leader — \$1,000 to \$2,499 Advocate — \$2,500 to \$4,999 Conservator — \$5,000 to \$7,499 Benefactor — \$7,500 to \$9,999 Visionary — \$10,000+

If you wish to join the 1897 Society and help promote the values and mission of Audubon, please contact Jeff Hall at 401-949-5454 ext. 3017.

In recognition of their philanthropic charity, members of the 1897 Society enjoy a variety of exclusive benefits, including invitations to member-only events and special communications.



For details and registration visit www.bigyearri.org



1401 Hope Street, Bristol, RI

November 4 & 5, 2017

Audubon Volunteer Butch Lombardi Contributes to Osprey Research

During the summer of 2015, volunteer Osprey Monitor Butch Lombardi witnessed and documented unusual Osprey behavior that has been published in the December 2016 Journal of Raptor Research. He carefully followed and photographed the unusual long distance nest switching behavior of a juvenile Osprey named Lizzie.

Butch relayed his keen observations to Rob Bierregaard, a research associate with the Academy of Natural Science at Drexel University. Bierregaard went on to publish the documented behavior this past December. Butch's observations and photos were also featured in the cover story for the Winter 2016 Audubon Report.





Butch Lombardi captured this image of Lizzie with her transmitter in the summer of 2015.

We congratulate Butch on contributing to vital Osprey research and thank him for his commitment to Audubon and the Osprey Monitoring Program.

Highlights from the 2017 Land & Water Conservation Summit

On March 11, 2017 United States Senator Sheldon Whitehouse opened the Audubon-sponsored Rhode Island Land & Water Summit at the University of Rhode Island. He began his remarks to the 300 attendees by acknowledging that difficult times are ahead on all land and water conservation issues. But he also shared some much needed encouraging news regarding the reaction in Washington on climate change.

The Senator said that carbon pricing initiatives similar to the bill under consideration in Rhode Island are slowly gaining strength in Washington and behind the scenes, republican support for climate action is growing. He also shared that Trump's commitment to undermining climate science is a new position for the President and his family. Seven years ago the President and his children signed a full-page ad in the New York Times that said that the science behind climate change is irrefutable and the consequences are catastrophic. Of course the President and his cabinet are trying to distance themselves from this position and there is significant work ahead. The Senator ended with a call to action and introduced Dr. Eric Chivian, a Nobel Laureate, who encouraged advocates to talk about climate change the way we discuss health and medicine.

Videos of both talks can be viewed on the Land & Water Partnership web site: http://www.landandwaterpartnership.org/summit2017.php



United States Senator Sheldon Whitehouse addresses the Land and Water Summit attendees.

LET'S GO BIRDING

By Laura Carberry

Nine Years in the Marsh

There is nothing better than an early morning on the marsh. The smell of the sea and grasses awaken the senses. The low fog and mist give it an eerie, magical feel. We listen for the quiet call of the Saltmarsh Sparrows but instead we are dive bombed by Willets, raucous protectors of their nests.. time we arrive in the middle of the marsh, we have sparrows flying in all directions. It's hard to keep track of the birds and not count them twice. This is also where we use to see Seaside Sparrows.

We carefully listen. Studying every sparrow. Nothing. It's been five years since we had a Seaside Sparrow here. The State



Audubon Naturalist Laura Carberry (right) and Deb DiQuinzio search for Saltmarsh Sparrows in the Quonochontaug Marsh in Charlestown, RI.

In 2007 I was asked to survey Saltmarsh and Seaside Sparrows at Quonochontaug Marsh in Charlestown for Walter Berry from the Environmental Protection Agency. I jumped at the opportunity and asked Deb DiQuinzio to join me. Deb was my college roommate and the focus of her masters thesis was the Saltmarsh Sparrow. What a great opportunity to flash back to the days when we would muck through the marshes looking for sparrows! Today we still use our college waders, chuckling because they are now held together with duct tape. We have been doing surveys at Quonnie for nine years. Deb and I have seen some amazing things, and we have observed changes.

As we get farther into the marsh Deb spots a Saltmarsh Sparrow up on some high tide bush. We watch it for several minutes and record data for the survey. By the opened up some of the mosquito canals five years ago and the phragmites that once were in the middle of the marsh are no longer there. This work, while necessary for the health of the marsh, has affected the habitat that attracts the Seaside Sparrow.

For the moment, Saltmarsh Sparrows are holding their own at Quonachontaug. But we know that with sea level rise they aren't likely to survive. They nest so close to the ground that when the high mean tide comes in on a full moon, many nests flood and nestlings do not make it. It is disheartening to think this sparrow will disappear because of human impact on the planet. Through legislation, habitat protection and simple every day choices, we can make a difference. Let's work hard to give these sparrows a chance.

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BLOCK ISLAND BIRDING WEEKEND September 29 - October 1, 2017

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Space is limited, register early through the events calendar at www.asri.org.

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AUDUBON SOCIETY OF RHODE ISLAND JOIN OUR LEAGUE OF SUPERHEROES

Help us to grow strong in the wake of climate change and the national debate on its consequences.

Traditionally, heroes are seen as powerful, brave and protective. For the Audubon Society of Rhode Island, our donors are nothing short of heroes – they sustain, inspire and allow Audubon to thrive.

But now Audubon is in need of superheroes – people who go above and beyond. Our current endowment provides only one-third of the necessary funds to keep our organization impactful and dynamic. The Invincible Audubon Campaign will provide needed funding to permanently advocate for nature, to educate children on the importance of our environment, and to protect and defend our nearly 9,500 acres of wildlife habitat. In short ... to make Audubon INVINCIBLE.

The Invincible Audubon campaign is different than our annual fundraising. Invincible Audubon is meant to provide permanent funding. Funding that we can rely and plan on for decades to come.

AUDUBON IS ASKING YOU TO TAKE THE LEAP AND BECOME A SUPERHERO.

For more info please visit www.invincibleaudubon.org or call 401-949-5454 ext 3017.

THE FOLLOWING INDIVIDUALS ARE GENEROUS CONTRIBUTORS TO THE INVINCIBLE AUDUBON CAMPAIGN.

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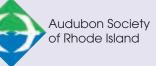
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Green Solutions for Stormwater Pollution

By Senior Director of Policy Meg Kerr

Public opinion polls find that clean water is a top environmental priority for most Americans. We appreciate and enjoy water for swimming, fishing, boating and paddling. We expect clean and safe drinking water supplies.

The Clean Water Act, first passed in 1972, has been successful in cleaning up the country's waterways. Environmental Protection Agency (EPA) programs implemented in partnership with the states have removed sewage and industrial effluents that once polluted waterways. Throughout the country, lakes, ponds, rivers, streams and coastal waters are much cleaner. Here in Rhode Island, we have seen this transformation. Old timers talk about the Blackstone River running blue and red with dye from the local mills. Today, you can see kayaks and fishermen on the river.

Nationally the remaining challenge to water quality is nonpoint source (NPS) pollution – the oil, metals, sediment and other pollutants that are washed from the landscape when it rains. In Rhode Island, storm water runoff (or NPS) is a significant source of pollution, particularly in urbanized areas.

Over the past decades, we have relied on "grey" manmade infrastructure to collect and treat stormwater runoff. Concrete catch basins collect water from roads, pipes carry the runoff to nearby streams. The Narragansett Bay Commission's rate payers have invested hundreds of millions of dollars in a huge underground tunnel to collect combined wastewater and stormwater and send it to the wastewater treatment plant. These investments have made a difference in our local environment.

Throughout the country, communities are also embracing "green" nature-based approaches to reducing stormwater runoff. "Green" infrastructure mimics nature by capturing stormwater so it can either be reused or seep into the ground where it falls, rather than flowing into underground sewer and storm pipes. Methods include rain gardens, pervious pavement, planted swales and storage containers such as cisterns and rain barrels. Green-infrastructure features can help reduce stress on water systems and provide good local jobs. As we face increasingly intense rain events and heat, green infrastructure also provides climate resilience, making the communities where they're installed healthier and more beautiful.

Spot the Beetle, Stop the Beetle

Help prevent the spread of Asian Longhorned Beetle. When hiking the trails, look for signs of the beetle.

> For more information on how to detect this destructive invasive insect, visit www.asri.org and click on "conservation."



Audubon has long supported green, nature-based solutions to reduce stormwater runoff. Shown above, Audubon staff installing a rain garden in 2010 at the Lonsdale Elementary School in Lincoln - and the resulting burst of blooms.

Audubon is one of the leading members of Rhode Island's Green Infrastructure Coalition (GIC), which was formed in 2014 to promote green stormwater solutions in Rhode Island's urban communities. The GIC focuses its work in the Providence metro area and on Aquidneck Island. Over 40 participating organizations work together on changing state policy and implementing green infrastructure projects to showcase their beauty and potential. The coalition also develops signage and other communications strategies. Projects have been implemented at Providence College, in Roger Williams Park and along the Woonasquatucket River at Riverside Park in Providence. These projects are used to educate citizens and decision makers about the beauty and importance of green infrastructure. Audubon's planned green infrastructure installations at the Caratunk Wildlife Refuge will soon be part of the coalition showcase.

You can learn more about the Green Infrastructure Coalition on the web (http://www.greeninfrastructureri. org) and on facebook (https://www.facebook.com/ RhodeIslandGIC/)

Consider joining Audubon and the Environment Council of Rhode Island (ECRI) at ECRI's annual meeting on June 5, 2017 in Newport. The meeting will feature information about green infrastructure and will start with a tour of projects in Newport. Contact me at mkerr@asri.org if you would like more information!



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Please pass this copy on to a friend or recycle. Thank you.

The Report is the Audubon Society's member newsletter and updates members on the current issues and actions of the Society, its staff and volunteers. We encourage your participation and you may send items that will be considered for publication to: Hope Foley, Managing Editor, Audubon Society of Rhode Island, 12 Sanderson Road, Smithfield, RI 02917 or by email to hfoley@asri.org.

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Visit www.asri.org and click on the webcam link.

